AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES MADE, AND LISTING OF ALL CLAIMS WITH PROPER INDENTIFIERS

1. (Currently Amended) A method for expressing a heterologous gene in hepatocytes in culture comprising:

- providing replication defective hepadnavirus particles at a titer level competent to infect hepatocytes, wherein ~~the region~~ sequences of the S-gene of the hepadnavirus genome ~~has~~ have been replaced with ~~[the]~~ a heterologous gene of up to 800 basepairs, such that the expression of the heterologous gene is regulated by ~~the~~ regulatory sequences of the S-gene;
- infecting hepatocytes with the hepadnavirus such that the heterologous gene is delivered into the hepatocytes and expressed in the hepatocytes, and wherein the replication defective hepadnavirus particles are one of human hepatitis B virus or duck hepatitis B virus particles.

Claims 2 and 3 are cancelled.

4. (Currently amended) The method of claim 42, wherein the heterologous gene replaces the S-gene and is expressed und r control of the endogenous S-promotor.

5. (Previously amended) The method of claim 41, wherein the heterologous gene is inserted such that one of an authentic AUG codon of the S-gene or its nucleotides encoding further amino acids of the S-protein are fused in frame to the 5' end of the heterologous gene.

6. (Previously amended) The method of claim 41, wherein the heterologous gene encodes a modulating agent.

7. (Original) The method of claim 6, wherein the modulating agent is a cytokine

8. (Previously amended) The method of claim 7, wherein the cytokine is selected from the group consisting of IFNα, IFNβ, IFNγ, TNFα, IL-12 and IL-18.

Claims 9-33 are cancelled

33. (Currently amended) A replication defective hepadnavirus particle of the group consisting of human hepatitis B virus and duck hepatitis B virus, wherein sequences of an S-gene of the hepadnavirus genome have been deleted and replaced by a heterologous gene of up to 800 basepairs such

that the sequences that are ssential for reverse transcription are retained.

34. (Previously amended) The replication defective hepadnavirus particle of claim 33, wherein the heterologous gene is a cytokine

36. (Previously amended) The replication defective hepadnavirus particle of claim 34, wherein the cytokine is selected from the group consisting of TNFα, IFNβ, IL-18, IFN-γ and IL-12.

Claims 37 and 38 are cancelled

39. (Currently amended) A method of producing replication defective hepadnavirus particles of human hepatitis B virus and duck hepatitis B virus at a titer suitable for infecting hepatocytes in culture comprising:

- co-transfecting hepatocyte cells of a hepatoma cell line with:

(i) replication defective hepadnavirus constructs, wherein [~~a region of one of an~~] sequences of an S-gene of the hepadnavirus DNA [~~has~~] have been replaced with a heterologous gene of up to 800 bp, such that expression of [~~the gene encoding a cytokine~~] the heterologous gene is regulated by regulatory sequences of the S-gene; and

(ii) a helper construct for transcomplementing lacking viral gene products;

- culturing the hepatocytes until infectious viral particles are produced; and
- recovering the infectious particles.

Claims 40 and 41 are cancelled.

42. (Currently amended) A method for producing replication defective recombinant hepadnavirus particles capable of expressing a heterologous gene in hepatocytes in culture comprising:

- replacing sequences of an S-gene in a hepatitis B virus genome with the heterologous gene of up to 800 base pairs such that the expression of the heterologous gene is regulated by ~~an~~ the S-promoter;
- producing a replication deficient hepadnavirus by means of a helper plasmid transcomplementing viral gene products such that the lacking viral gene products are present;
- Infecting hepatocytes with the recombinant hepadnavirus in culture, whereby the heterologous gene is delivered into the hepatocyte and expressed in the hepatocyte, wherein the

replication defective recombinant hepadnavirus particles are human hepatitis B virus particles.

43. (Previously amended) A recombinant hepatitis B virus genome, wherein an S-gene in the genome is deleted and replaced by a heterologous gene of up to 800 base pairs and wherein the genome is selected from the group consisting of recombinant human hepatitis B virus or recombinant duck hepatitis B virus, and wherein the sequences essential for reverse transcription are retained.

44. (Previously amended) The recombinant genome of claim 43, wherein the heterologeous gene is under the control of the endogenous S promoter.

45. (Previously amended) The recombinant genome of claim 43, wherein the heterologous gene is an immunomodulator.

46. (Previously amended) The recombinant genome of claim 43, wherein the heterologous gene is a cytokine.

47. (Previously amended) The recombinant genome of claim 44, wherein the immuno modulator is selected from the group consisting of IFNα, IFNβ, IFNγ, TNFα, IL-18 or IL-12.

48. (Previously amended) The recombinant genome of claim 43, wherein the heterologous gene is a chemokine.

49. (Original) The replication defective hepadnavirus particle of claim 33, wherein expression of the gene is regulated by regulatory sequences of the S-gene.

50. (Original) The replication defective hepadnavirus particle of claim 34, wherein the heterologous gene is a chemokine.